PP-RCT PIPING PRODUCTS

- Certified Quality
- Absolute Reliability
- Complete Range
- Low Thermal Expansion
- Speed of Installation

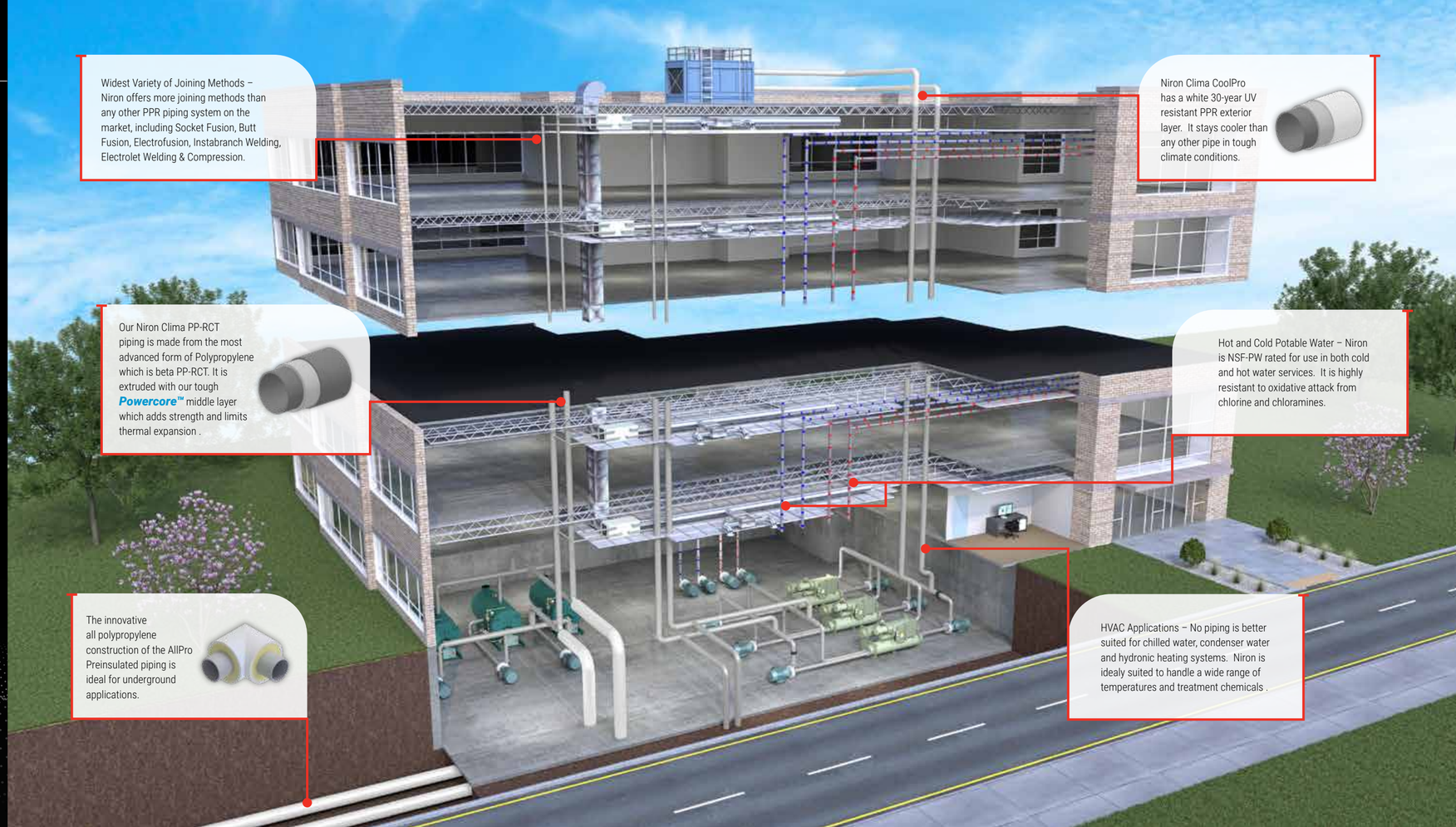
nupi AMERICAS

APPLICATIONS

Niron Clima PP-RCT is the ideal piping for any water-based services in commercial building applications. The material, beta PP-RCT is a major improvement on random copolymer polypropylene. The result is a unique resin that is in a class unto itself. Unlike typical semi-crystalline materials, the mostly-crsytalline structure of beta PP-RCT allows the end use product to have substantially higher pressure performance at elevated temperatures. Perhaps even more importantly, the material provides a quantum improvement in chemical resistance to oxidative attack and also to attack from copper ions in potable water piping systems. Niron Clima PP-RCT is truly a 21st century answer to the demands of commercial building applications.

The piping in our Niron Clima PP-RCT is extruded with our innovative ***Powercore™*** middle layer that contains added fiberglass. This unique blend of randomly dispersed short glass fibers improves the modulus of elasticity of the material, which adds stiffness, strength and stability. What is normally a very high growth material due to temperature changes has its thermal expansion coefficient dramatically reduced. This allows Niron Clima PP-RCT to behave more like a metallic pipe than any other kind of thermoplastic material. In addition, the support spacing requirements are extended compared to many thermoplastics, so any additional costs due to supporting the pipe are kept to a manageable level to allow a low overall cost of installation compared to traditional materials.

The heat fusion methods used to join Niron Clima PP-RCT piping result in joints that are equal to or stronger than the pipe or fittings being joined. This makes the fusion welds in Niron piping and fittings the strongest point in the system. In every other kind of piping system available on the market, be it welded or grooved steel, sweated or pressed copper, solvent cemented thermoplastics, etc., the joint is always the weakest link in the system. The fusion joints in Niron Clima PP-RCT piping not only become the strongest point in the system, they are also one of the most economical methods of joining pipe available today.



The Niron brand consists of a random copolymer polypropylene (β-PP-RCT) pipe and fitting system produced by Nupi Americas, manufactured to ASTM F2389 and CSA B137.11 Standards.

Niron is a piping system used for all kinds of water applications including hot and cold potable water, hydronic heating, and both chilled water and cooling tower circulation pipes. The system can be used for large multi-family residential buildings, hotels, hospitals, malls, churches, schools, gymnasiums, cruise liners and merchant ships.

The Niron system is also used in industrial installations for the conveyance of compressed air as well as a wide variety of chemical substances.

Niron quality products are backed by a 30 year warranty.

ADVANCED PP-RCT MATERIAL

Niron is manufactured from 100% β-PP-RCT material, a highly β-crystalline form of PPR which allows for up to twice the pressure rating at higher temperatures and superior chlorine resistance.

ABSOLUTE RELIABILITY

Produced since 1982, the Niron System has been sold in all 5 continents. Over 150,000 miles of pipes and fittings have been shipped with complete customer and installer satisfaction.

CERTIFIED QUALITY

The Niron family of products not only meet prestigious international quality standards, but also meet our own benchmarks. Quality to us stands for complete customer satisfaction. Niron products are produced using the finest materials and are manufactured using thorough quality control standards, so you can count on a consistent product every time.

COMPLETE RANGE

Pipes and fittings - from ½" to 24" - are available in a wide range of fittings and joining methods to solve any installation problem.

LOW THERMAL EXPANSION

This is obtained thanks to our ***Powercore™*** middle layer produced with an innovative coextrusion technology. The middle ***Powercore™*** layer is made of PP-RCT copolymer reinforced with added short fiber random fiberglass to reduce the linear expansion up to 73%.

SPEED OF INSTALLATION

Unquestionably, the biggest advantage of Niron lies in the speed of installation. Due to fast and reliable joining methods, time of installation can be reduced by up to 30-50% compared to metallic piping systems.

NIRON

Our Niron System offers the widest range of joining options of any PPR product line with five primary joining methods and a complete range of fitting sizes. It can be joined by butt fusion and electrofusion through 24".

JOINING METHODS:

- SOCKET FUSION
- BUTT FUSION
- ELECTROFUSION
- ELECTROLET WELDING
- INSTABRANCH WELDING
- INSTAHEADER WELDING
- COMPRESSION

SOCKET FUSION

For full pressure joining with a full range of fittings in ½" through 4" sizes. Joints can be made using hand held tools and in large sizes with spider or bench tools for maximum effectiveness.

ELECTROFUSION

Electrofusion offers a cost effective ability to make full pressure welds in difficult areas. Niron is the only PPR system available with a full fitting system allowing electrofusion in sizes from ½" through 10". Niron fittings in many sizes are manufactured using single wire technology, which means multiple sides of a fitting are fused simultaneously. This means overall installation efficiency even in hard to reach areas. Niron electrofusion may also be performed from 12" through 24" using Niron electrofusion couplings.

INSTABRANCH™ & INSTAHEADER™ WELDING

Niron offers a full variety of fittings that allow small diameter branches to be readily fused into larger pipes without the expense of adding reducing tees. Custom headers can be created on site, or in the fabrication shop to prefabricate any kind of header combination that is required. Instabranch & Instaheader welding offers substantial labor savings in comparison to branch installations involving copper or steel piping.

BUTT FUSION

Butt fusion with long spigot fittings starting at 2" and through 24". Butt fusion is often a more fabrication friendly technique compared to socket fusion in sizes of 2" through 4", and customers can take advantage of this feature of the Niron System.

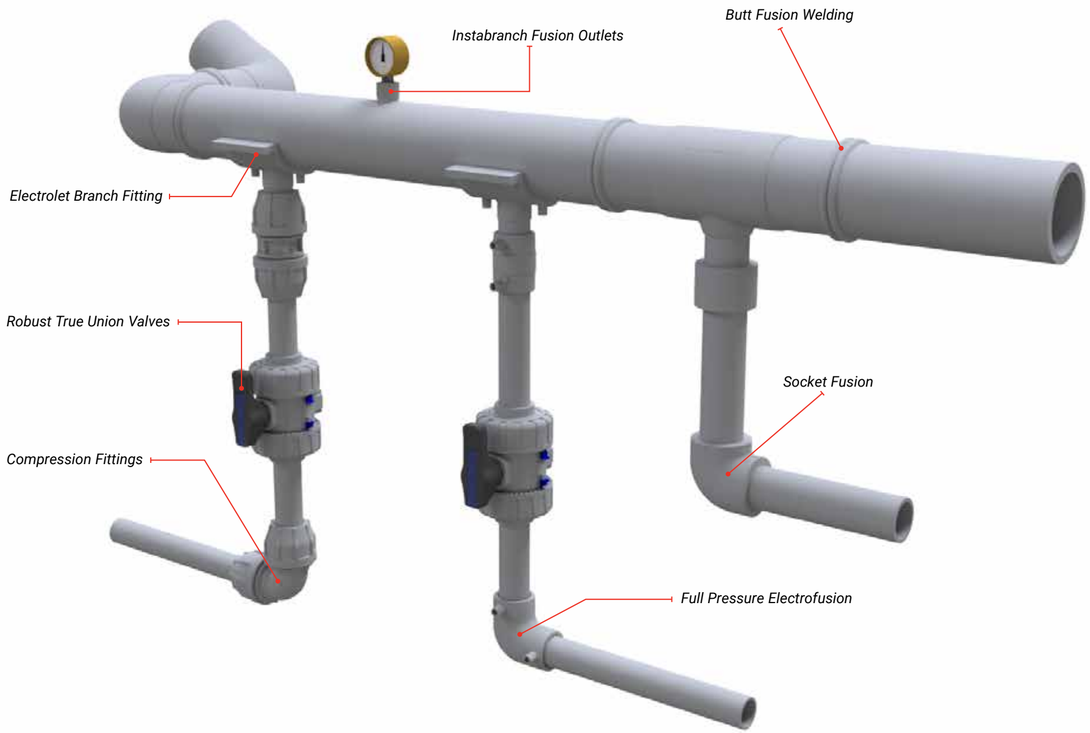
ELECTROLET WELDING

Our novel electrolet welding method is a highly efficient way to make reducing branch connections on a straight run of pipe. Electrolet branches can be performed in any orientation and is ideal for work performed up on a pipe lift.

NIRON

PP-RCT

A WIDE RANGE OF JOINING OPTIONS:



NIRON Clima

PP-RCT PIPE
SDR 7.3
SDR 9
SDR 11
SDR 17

Color: Steel Grey
Style of Pipe: Three Layer Extrusion
Inner Layer: Solid PP-RCT (Borealis β-RA-7050 Grey PP-RCT)
Powercore Layer: PP-RCT w/added fiberglass (Borealis β-RA-7050 Grey PP-RCT + Fiberglass)
Outer Layer: Solid PP-RCT (Borealis β-RA-7050 Grey PP-RCT)

CoolPro NIRON Clima

PP-RCT PIPE
SDR 7.3
SDR 11
SDR 17

Color: Steel Grey with White Exterior Layer
Style of Pipe: Three Layer Extrusion
Inner Layer: Solid PP-RCT (Borealis β-RA-7050 Grey PP-RCT)
Powercore Layer: PP-RCT w/added fiberglass (Borealis β-RA-7050 Grey PP-RCT + Fiberglass)
Outer Layer: Solid 30 Year UV Resistant White PPR

AllPro NIRON Clima

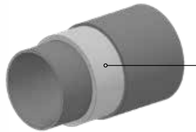
PP-RCT PIPE
SDR 7.3
SDR 9
SDR 11
SDR 17

Color: Steel Grey Interior Pipe with White Exterior Layer Jacket Pipe
Style of Pipe: Preinsulated Piping
Inner Pipe: Niron Clima Pipe in Various SDR's
Insulation Layer: Closed Cell Polyurethane Foam
Outer Jacket: 2-Layer PPR Pipe with Grey Inner PP-RCT Layer & Solid UV Resistant White Outer Layer

NIRON PURPLE

PP-RCT PIPE
SDR 11
SDR 17

Color: Steel Grey with Purple Exterior Layer
Style of Pipe: Three Layer Extrusion
Inner Layer: Solid PP-RCT (Borealis β-RA-7050 Grey PP-RCT)
Powercore Layer: PP-RCT w/added fiberglass (Borealis β-RA-7050 Grey PP-RCT + Fiberglass)
Outer Layer: Solid Purple PPR



Powercore™

Power from Within.

The Powercore™ middle layer in Niron pipe contains added fiberglass which restrains thermal expansion and contraction of the β-PP-RCT material by up to 75%. It also increases the modulus of elasticity of the material which helps to stiffen the pipe, adding strength to the pipe wall.

LONG RADIUS 90° ELBOW

CODE	inches
NCLR	½" - ¾"

CROSSOVER PIPE

CODE	inches
NSOR	½" - ¾" - 1"
NSOFF	½" - ¾"
NSOFM	½" - ¾"

90° ELBOW

CODE	inches
NG	(SOCKET FUSION) from ½" to 4"
NG_MM	(LONG SPIGOT)
SDR 7.3	from 2" to 10"
SDR 11	from 2" to 20"
SDR 17	from 2" to 24"

FEMALE THREADED 90° ELBOW

CODE	inches
NGF	from ½" x ½" NPT to 2" x 2" NPT

MALE THREADED 90° ELBOW

CODE	inches
NGM	from ½" x ½" NPT to 1" x 1" NPT

FEMALE THREADED BACK PLATE 90°

CODE	inches
NTER	½" x ½" NPT

FEMALE THREADED WINGED 90° ELBOW

CODE	inches
NGTF	½" x ½" NPT

MALE THREADED WINGED 90° ELBOW

CODE	inches
NGTM	½" x ½" NPT

TEMPLATE FOR EXTERNAL BATH TAPS

CODE	inches
NGVF	½" x ½" NPT ¾" x ½" NPT

FEMALE THREADED 90°ELBOW FOR TEMPLATE

CODE	inches
NGOF	½" x ½" NPT ¾" x ½" NPT

MALE THREADED 90°ELBOW FOR TEMPLATE

CODE	inches
NGOM	½" x ½" NPT

STREET 90° ELBOW

CODE	inches
NGMF	from ½" to 1¼"

FEMALE THREADED STREET 90° ELBOW

CODE	inches
NGMFF	½" x ½" NPT

45° ELBOW

CODE	inches
NC45	(SOCKET FUSION) from ½" to 4"
NC45_MM	(LONG SPIGOT)
SDR 7.3	from 2" to 10"
SDR 11	from 2" to 20"
SDR 17	from 2" to 24"

22.5° ELBOW

CODE	inches
NC22	
SDR 7.3	from 3" to 10"
SDR 11	from 3" to 20"
SDR 17	from 3" to 24"

STREET 45° ELBOW

CODE	inches
NC45MF	from ½" to 1"

90° TEE

CODE	inches
NT	(SOCKET FUSION) from ½" to 4"
NT_MM	(LONG SPIGOT)
SDR 7.3	from 2" to 10"
SDR 11	from 2" to 20"
SDR 17	from 2" to 24"

FEMALE THREADED TEE W/NPT LEAD FREE BRASS

CODE	inches
NTF	from ½" x ½" NPT to 1"x1" NPT

FEMALE THREADED TEE W/NPT STAINLESS STEEL

CODE	inches
NTF_SS	from ½" x ½" NPT to 1" x 1" NPT

MALE THREADED TEE W/NPT LEAD FREE BRASS

CODE	inches
NTM	from ½" x ½" NPT to 1" x 1" NPT

FEMALE THREADED TEE W/NPT STAINLESS STEEL

CODE	inches
NTM_SS	from ½" x ½" NPT to 1" x 1" NPT

REDUCING TEE

CODE	inches
NTR	(SOCKET FUSION) from ¾" x ½" to 4" x 3 ½"
NTR_MM	(LONG SPIGOT)
SDR 11	from 3" x 1¼" to 10" x 8"
SDR 17	from 3" x 1¼" to 10" x 8"

MALE BRANCH REDUCING TEE - LONG SPIGOT

CODE	inches
NTR_M	
SDR 11	from 6" x 2" to 20" x 18"
SDR 17	from 6" x 2" to 24" x 22"

SOCKER BRANCH FUSION REDUCING TEE

CODE	inches
NTRF	
SDR 11	from 3" x 1¼" to 14" x 3"

45° LATERAL WYE - LONG SPIGOT

CODE	inches
NWYE	
SDR 7.3	from 3" to 6"
SDR 9	from 3" to 12"
SDR 11	from 3" to 16"
SDR 17	from 3" to 20"

REDUCED CROSS- SOCKET FUSION

CODE	inches
NCR	from 1¼" x ½" x ½" x 1¼" to 1¼" x ¾" x ¾" x 1¼"

REDUCER

CODE	inches
NR	(SOCKET FUSION) from ¾" x ½" to 4" x 3 ½"
NR_MM	(LONG SPIGOT)
SDR 7.3	from 2 "x 1 ¼" to 12" x 10"
SDR 11	from 2½" x 1¼" to 20" x 18"
SDR 17	from 2½" x 1¼" to 24" x 22"
NRCC	(SHORT SPIGOT)
SDR 7.3	from 6" x 3" to 10" x 8"
SDR 11	from 10" x 6" to 20" x 18"
SDR 17	from 10" x 6" to 24" x 22"

COUPLING

CODE	inches
NMAN	from ½" to 4"

FEMALE THREADED ADAPTER - SOCKET FUSION

CODE	inches
NRFF	(W/LEAD FREE BRASS)
NRFF_L	(STANDARD BRASS)
NRFF_SS	(W/NPT STAINLESS STEEL) from ½" x ½" NPT to 4" x 4" NPT

MALE THREADED ADAPTER

CODE	inches
NRFM	(W/LEAD FREE BRASS)
NRFM_L	(STANDARD BRASS)
NRFM_SS	(W/NPT STAINLESS STEEL) from ½" x ½" to 4" x 4" NPT

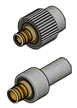
FEMALE THREADED ADAPTER - LONG SPIGOT

CODE	inches
NRFF	(W/LEAD FREE BRASS) from ½" x 1½" to 4" x 4"NPT

MALE THREADED ADAPTER - LONG SPIGOT

CODE	inches
NRFM	(W/LEAD FREE BRASS) from ½" x 1½" to 4" x 4"NPT

PEX ADAPTER - COLD EXPANSION



CODE	inches
NPR	(SOCKET FUSION) COLD EXPANSION ASTM1960 from ½" x ½" to 1½" x 2" CRIMP RING ASTM1807 from ½" x ½" to 1½" x 1"
NPR_11	(LONG SPIGOT)
SDR11	from ½" x ½" to 1½" x 2"

COPPER ADAPTER WITH SOCKET END

CODE	inches
NCUA_L	from ½" x ½" to 1¼" x 1¼"CTS

COPPER STUB OUT TRANSITION FITTING

CODE	inches
NCUT_L	from ½" x ½" to 1" x 1"CTS

COPPER STUB OUT ELBOW

CODE	inches
NCUTC_L	from ½" x ½" to 1" x 1"CTS

GROOVED MECANICAL COUPLING ADAPTER

CODE	inches
NRV	
stainless steel	
SDR 11	from 1½" x 1½" to 4" x 4"
carbon steel	
SDR 11	from 6" x 6" to 12" x 12"

ALL-PLASTIC UNIONS WITH SOCKET FUSION ENDS

CODE	inches
NBRF	from ½" to 1¼"

UNION W/STAND. BRASS NUTS & SOCKET FUSION ENDS

CODE	inches
NCSJ	from ½" x ½" to 2" x 2"

INSTABRANCH™ WELDING SOCKLET W/SOCKET FUSION OUTLET

CODE	inches
NGS	from 1½" x 1¼" to 3" x 14"

INSTABRANCH™ WELDING SOCKLET W/SOCKET FEMALE OUTLET

CODE	inches
NGSF	(w/lead free brass)
NGSF_l	(standard brass)
NGSF_ss	(w/npt SS) from 1¼" x 1½" to 24" x 1" NPT

INSTAHEADER™ PEX ADAPTER (COLD EXPANSION - ASTM F1960)

CODE	inches
NPGS	from 1¼" x ½" to 4" x 1"

INSTAHEADER™ PEX ADAPTER (CRIMP RING - ASTM F1807)

CODE	inches
NPGSCR	from 1¼" x ½" to 4" x 1"

END CAP

CODE	inches
NCC	(SOCKET FUSION) from ½" to 5"
NCC_M	(LONG SPIGOT)
SDR 7.3	from 6" to 10"
SDR 11 - 17	from 2" to 24"
NCC_MS	(short SPIGOt)
SDR 7.3-11-17	from 10" to 24"

STUB FLANGE

CODE	inches
NCOSA	(SOCKET FUSION) from 1" to 5"
NCRT	(LONG SPIGOT)
SDR 7.3	from 1" to 10"
SDR 11	from 1" to 20"
SDR 17	from 2" to 24"
NCRT_S	(SHORT SPIGOT)
SDR 7.3	from 4" to 10"
SDR 11	from 14" to 20"
SDR 17	from 14" to 24"

BACKING RING ANSI/ASA 150

CODE	inches
FLAACPP	from 1" to 10"
FLAVN	from 12" to 22"
FLAAC	24"

GASKET LOW - STRESS EPDM

CODE	inches
GRET	from 1" x 24"

ANCHOR POINT

CODE	inches
napfrom	6" x 12"

ELECTROFUSION FITTINGS

ELECTROFUSION COUPLING

CODE	inches
NME	
SDR 7.3	from ½" to 10"
SDR 11	from 3" to 20"
SDR 17	from 6" to 24"

ELECTROFUSION REDUCER

CODE	inches
NRDE	
SDR 11	from ½"x ¾" to 10"x 8"

ELECTROFUSION 30° ELBOW

CODE	inches
NCEM30	
SDR 11	from 3" to 8"

ELECTROFUSION 45° ELBOW

CODE	inches
NCEM	
SDR 11	from 1" to 10"

ELECTROFUSION 90° ELBOW

CODE	inches
NGEM	
SDR 11	from ½" to 10"

ELECTROFUSION TEE

CODE	inches
NTCE	
SDR 11	from ½" to 10"

ELECTROLET™ BRANCH FITTINGS

CODE	inches
NCOL	
SDR 11	from 1¼" x ¾" to12 "x 5" (high volume) from 8" x 3" to 24" x 6"
NCOL_PR WITH PEX ADAPTER	
SDR 11	from 1¼" x ½" to 12" x 4"
NCOL_PR WITH PEX ADAPTER	
NCOLF_F FEMALE THREADED	
SDR 11	from 1¼" x ½" to 12" x 4"
NCOLM_F MALE THREADED	
SDR 11	from 1¼" x ½" to 12" x 2"
NCOLvpr w/valve pex adapter	
SDR 11	from 1¼" x ½" to 12" x 1"
NCOLTLV W/VALVE PEX ADAPTER (high volume)	
	from 14" x 2" to 24" x 3"

VALVES

PPR T.U. BALL VALVE - SOCKET & SPIGOT ENDS

CODE	inches
NRSPPRCT	from ½" to 4"
NRSPPRCTS	from ¾" to 4"

PP-RCT COMPRESSION FITTINGS

Contact Nupi Americas for information on variety types and sizes.

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